



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/659,106	09/11/2000	Hans Eberle	1004-5041	4516

22120 7590 03/16/2005
ZAGORIN O'BRIEN GRAHAM LLP
7600B N. CAPITAL OF TEXAS HWY.
SUITE 350
AUSTIN, TX 78731

EXAMINER

KADING, JOSHUA A

ART UNIT	PAPER NUMBER
----------	--------------

2661

DATE MAILED: 03/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/659,106

Applicant(s)

EBERLE ET AL.

Examiner

Joshua Kading

Art Unit

2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 11-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8, 11-13, 18-23, and 25-31 is/are rejected.
- 7) ☒ Claim(s) 14-17, 24, 32, and 33 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

5 A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10 Claims 1, 8, and 26-31 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,541,927, Kristol et al. (Kristol)

In regard to claim 1, Kristol et al. disclose “a method of multicasting, comprising:
sending multicast information from a source to a plurality of targets (figure 7,
15 element 710 where E_{ij} indicates a plurality of targets);

sending respective acknowledgements from each of the targets, indicating receipt of the multicast information (figure 7, element 720 where the status sent is the acknowledgement as can be read in col. 10, line 42);

merging the respective acknowledgements into a merged acknowledgement
20 (figure 7, element 730 where the consolidated status is the merged acknowledgement), wherein the merged acknowledgement indicates which of the plurality of targets received the multicast information (col. 9, lines 39-47 where as in step 710 the E_{ij} 's indicate a plurality of targets and as read in col. 10, line 42 the status message is an acknowledgement message);

and supplying the merged acknowledgement to the source (figure 7, element 730 where the consolidated status or acknowledgement is sent to the source)."

In regard to claim 8, Kristol et al. disclose "the method as recited in claim 1 wherein the merged acknowledgement is formed by logically combining the respective acknowledgements (col. 9, lines 66-67 and col. 10, line 1 where the LOB's come from each target and a logical bitwise AND is performed on all of them to obtain the $LOB_{consolidated}$)."

In regard to claim 26, Kristol et al. disclose "an apparatus for transmitting information between an initiator node and a plurality of target nodes, comprising: means for multicasting information to a plurality of the target nodes from the initiator node (col. 9, lines 36-37); and

means for combining received acknowledgements indicating whether the multicast information was successfully received, into a combined acknowledgement that indicates those of the plurality of target nodes that acknowledged successful receipt of the multicast information and returning the combined acknowledgement to the initiator node (col. 9, lines 39-53 and col. 10, lines 21-24 where as in step 710 the E_{ij} 's indicate a plurality of targets and as read in col. 10, line 42 the status message is an acknowledgement message; figure 7, element 730 where the consolidated status or acknowledgement is sent to the source)."

Regarding claim 27, Kristol discloses "a network node comprising:

a plurality of ports to receive and to transmit multicast information (figure 3, element 304 has a plurality of ports to transmit and receive multicast information as is described in col. 2, lines 31-39); and

5 multicast acknowledgement merging logic coupled with the plurality of ports, the logic to generate a merged multicast acknowledgement that indicates acknowledging target nodes of a multicast (figure 7, element 730 where the consolidated status is the merged acknowledgement and the merging must be done by logic coupled to the ports; col. 9, lines 39-47 where as in step 710 the E_{ij} 's indicate a plurality of targets and as
10 read in col. 10, line 42 the status message is an acknowledgement message)."

Regarding claim 28, Kristol discloses "the network node of claim 27, wherein the network node includes one or more of a router, switch, and a bridge (col. 4, lines 34-38)."

15

Regarding claim 29, Kristol discloses "the network node of claim 27, wherein indication of the acknowledging target nodes comprises indicating those of the plurality of ports that correspond to acknowledging target nodes (col. 9, lines 39-47 where as in step 710 the E_{ij} 's indicate a plurality of targets and as read in col. 10, line 42 the status
20 message is an acknowledgement message sent to the source node and as can be read in col. 7, lines 49-61 each node contains information indicating which node (thus which port) has acknowledged the multicast message)."

Regarding claim 30, Kristol discloses "the network node of claim 27, wherein indication of the acknowledging target nodes comprises identifying the acknowledging target nodes (col. 9, lines 39-47 where as in step 710 the E_{ij} 's indicate a plurality of targets and as read in col. 10, line 42 the status message is an acknowledgement message sent to the source node and as can be read in col. 7, lines 49-61 each node contains information indicating which node (thus which port) has acknowledged the multicast message)."

Regarding claim 31, Kristol discloses "the node of claim 27 further comprising the multicast acknowledgement merging logic to merge multicast acknowledgements to indicate whether a multicast was successful (figure 7, element 730 where the consolidated status is the merged acknowledgement and the merging must be done by logic; col. 9, lines 39-47 where as in step 710 the E_{ij} 's indicate a plurality of targets and as read in col. 10, line 42 the status message is an acknowledgement message and as is known in the art (and specified by applicant) an acknowledgement is an indication the multicast was successful)."

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 2661

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5 Claims 2-5, 7, 12, 13, 21-23, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kristol et al. in view of U.S. Patent 5,502,756, Crocker et al. (Crocker).

 In regard to claim 2, Kristol et al. disclose the method as recited in claim 1.

10 However, Kristol et al. lack "the multicast information is sent across a switch to a plurality of targets." Crocker et al. however, disclose "the multicast information is sent across a switch to a plurality of targets (figure 1, element 20 where the local exchange switch of Crocker is used as the Local Exchange of Kristol)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the local

15 exchange switch with the method of claim 1 for the purpose of routing the combined acknowledgement messages to the appropriate destination. The motivation being efficient routing of information from targets to sources and vice versa.

 In regard to claim 3, Kristol et al. and Crocker et al. disclose the method as

20 recited in claim 2. However, Crocker et al. lack "the respective acknowledgements are sent from the respective targets to the switch." Kristol et al. however, further disclose "the respective acknowledgements are sent from the respective targets to the switch (figure 7, element 720 where each target E_{ij} sends an acknowledgement to L_i the local exchange switch of claim 2)." It would have been obvious to one with ordinary skill in the

art at the time of invention to send the target acknowledgements to the switch for the same reasons and motivation as in claim 2.

In regard to claim 4, Kristol et al. and Crocker et al. disclose the method as
5 recited in claim 3. However, Crocker et al. lack "the switch merges the respective
acknowledgements and forwards the merged acknowledgement to the source." Kristol
et al. however, further disclose "the switch merges the respective acknowledgements
and forwards the merged acknowledgement to the source (figure 7, element 730 where
again the L_i is the local exchange switch of Crocker)." It would have been obvious to
10 one with ordinary skill in the art at the time of invention to have the switch merge the
acknowledgements into one merged acknowledgement for the same reasons and
motivation as in claim 3.

In regard to claim 5, Kristol et al. and Crocker et al. disclose the method as
15 recited in claim 4. However, Crocker et al. lack "the acknowledgements are supplied in
an acknowledgement packet encoding an identity of the acknowledging target." Kristol
et al. however, further disclose "the acknowledgements are supplied in an
acknowledgement packet encoding an identity of the acknowledging target (figure 6,
element 620 which is an acknowledgement packet as can be read in col. 9, lines 39-42
20 and col. 6, lines 15-20, and field LEPI where LEPI is defined as a local endpoint
identifier which is used to identify a target)." It would have been obvious to one with
ordinary skill in the art at the time of invention to include the target identifier in the

acknowledgement packet for the purpose of knowing who the acknowledgment message came from. The motivation being proper identification of targets that have received information.

5 In regard to claim 7, Kristol et al. and Crocker et al. disclose the method as recited in claim 3. However, Crocker et al. lack "the switch is a network switch coupling a plurality of sources and a plurality of targets in a network." Kristol et al. however, further disclose "the switch is a network switch coupling a plurality of sources and a plurality of targets in a network (figure 3 where elements 302 are hosts which can be
10 sources and targets as a host can send and receive data making it both a target and a source, and element 304 is the local exchange switch of Crocker coupling the sources and targets through network 310)." It would have been obvious to one with ordinary skill in the art at the time of invention to connect a plurality of hosts and a plurality of targets with a switch for the same reasons and motivation as in claim 3.

15 In regard to claim 12, Kristol et al. disclose "a networked system comprising:
a sending node (col. 9, line 36 where S is the source or sending node);
a plurality of receiving nodes coupled to...receive multicast information sent from
the sending node during a multicast operation and coupled to provide
20 acknowledgements indicating whether the multicast information was successfully received (col. 9, lines 36-42 where all E's are the receiving nodes and their status messages are the acknowledgment messages);

a...medium coupled to supply the multicast information to the respective receiving nodes...and to receive and combine the respective acknowledgements into a combined acknowledgement that indicates which of the plurality of receiving nodes acknowledged receipt of the multicast information, wherein the merged
5 acknowledgement is supplied to the sending node (col. 9, lines 39-53 and col. 10, lines 21-24 where L is the coupled medium and where as in step 710 the E_{ij} 's indicate a plurality of targets and as read in col. 10, line 42 the status message is an acknowledgement message sent to the source (sending) node)."

However, Kristol et al. lack "...simultaneously..." sending and receiving
10 information from the receiving and sending nodes and "a switching medium coupled to supply the multicast information..." Crocker et al. however, disclose "a switching medium coupled to supply the multicast information... (figure 1, element 20 where the local exchange switch of Crocker is used as the Local Exchange of Kristol)." It would have been obvious to one with ordinary skill in the art at the time of invention to include
15 the local exchange switch with the multicast network for the purpose of routing the information to the correct destination. The motivation for this being efficient data transmission.

In regard to claim 13, Kristol et al. and Crocker et al. disclose the networked
20 system of claim 12. However, Crocker et al. lack "the networked system includes a switched data network and the switching medium is a network." Kristol et al. however, further disclose "the networked system includes a switched data network and the

Art Unit: 2661

switching medium is a network (figure 3 where elements 302 are hosts which can be sources and targets as a host can send and receive data making it both a target and a source, and element 304 is the local exchange switch of Crocker coupling the sources and targets through network 310).” It would have been obvious to one with ordinary skill

5 in the art at the time of invention to include the switched data network with the network of claim 12 for the same reasons and motivation as claim 12.

In regard to claim 21, Kristol et al. and Crocker et al. disclose the networked system of claim 12. However, Crocker et al. lack “the switching medium combines the

10 acknowledgements in response to information in each acknowledgement packet that indicates a multicast acknowledgement is being sent.” Kristol et al. however, further disclose “the switching medium combines the acknowledgements in response to information in each acknowledgement packet that indicates a multicast

acknowledgement is being sent (figure 6, element 620 which is an acknowledgement packet as can be read in col. 9, lines 39-42 and col. 6, lines 15-20, and field LEPI where LEPI is defined as a local endpoint identifier which is used to identify a target and the Type field identifies what type of packet it is; col. 9, line 43 states that only the status type messages or acknowledgement type messages are combined, these messages are identified by their Type field).” It would have been obvious to one with ordinary skill

20 in the art at the time of invention to include the combining acknowledgements in response to information received with the network of claim 12 for the same reasons and motivation as in claim 12.

In regard to claim 22, Kristol et al. and Crocker et al. disclose the networked system of claim 12. However, Crocker et al. lack "the acknowledgements...are destined for the same source." Kristol et al. however, further disclose "the
5 acknowledgements...are destined for the same source (col. 9, lines 47 where the source S is the only source therefore all acknowledgment messages are going to the same source)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the destined for the same source with the network of claim 12 for the same reasons and motivation as in claim 12.

10

Regarding claim 23, Kristol and Crocker disclose the networked system of claim 12. However, Crocker lacks what Kristol further discloses, that is "the switching medium combines the acknowledgements in response to having scheduled a multicast data transfer (figure 7, where the combining of acknowledgements in step 730 is in response
15 to acknowledgements from each target node of a multicast message transfer in step 710)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the combining acknowledgements in response to a multicast data transfer with the system of claim 12 for the same reasons and motivation as in claim 12.

20

In regard to claim 25, Kristol et al. and Crocker et al. disclose the networked system of claim 12. However, Crocker et al. lack "the networked system includes a plurality of hosts, each of the hosts includes both a sending node and a receiving node

coupled to the switching medium.” Kristol et al. however, further disclose “the networked system includes a plurality of hosts, each of the hosts includes both a sending node and a receiving node coupled to the switching medium (figure 3, element 302 is a plurality of hosts, and each of these hosts is connected to the switching medium 304; further it is
5 taken that each of these hosts must have a receiving and sending node in order to communicate with each other).” It would have been obvious to one with ordinary skill in the art at the time of invention to include the plurality of hosts with the network of claim 12 for the same reasons and motivation as in claim 12.

10 Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kristol et al. in view of U.S. Patent 6,067,567, Bartfai et al. (Bartfai).

Regarding claim 11, Kristol discloses “a method comprising:

sending multicast information from a source to a plurality of targets (figure 7, element 710 where E_{ij} indicates a plurality of targets);

15 sending respective acknowledgements from each of the targets, indicating receipt of the multicast information (figure 7, element 720 where the status sent is the acknowledgement as can be read in col. 10, line 42);

merging the respective acknowledgements into a merged acknowledgement (figure 7, element 730 where the consolidated status is the merged
20 acknowledgement)...

and supplying the merged acknowledgement to the source (figure 7, element 730 where the consolidated status or acknowledgement is sent to the source).”

However, Kristol lacks what Bartfai discloses, that is "wherein the merged acknowledgement includes a single bit indicating whether all of the targets successfully received the multicast information (col. 6, lines 41-48; it is noted that although the acknowledgement service packet is not necessarily a single bit, as stated in applicant's specification on page 8, lines 1-2, the acknowledgement bit can be an acknowledgement packet conveying the same information as the single bit)."

It would have been obvious to one with ordinary skill in the art at the time of invention to include the single acknowledgement bit (or packet) with the rest of the method for the purpose of indicating that all of the nodes have received the multicast message. The motivation being that this insures a reliable and verifiable distribution of messages (Bartfai, col. 7, lines 1-4).

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kristol et al. and Crocker et al., and further in view of applicant's admitted prior art (AAPA).

In regard to claim 6, Kristol et al. and Crocker et al. disclose the method as recited in claim 3. However, Kristol et al. and Crocker et al. lack "the switch is a synchronous switch and all acknowledgements are received by the switch at the same time." AAPA however, discloses "the switch is a synchronous switch and all acknowledgements are received by the switch at the same time (specification, page 2, lines 1-5 where this is saying that the switch is a synchronous switch and receives the acknowledgements at the same time)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the synchronous switch with the method

of claim 3 for the purpose of sending or receiving information at the same time. The motivation for this being efficiency.

Claims 18, 19, and 20 are rejected under 35 U.S.C. 103(a) as being

5 unpatentable over Kristol et al. and Crocker et al., and further in view of Bartfai et al.

Regarding claim 18, Kristol and Crocker disclose the networked system of claim 12. However, Kristol and Crocker lack what Bartfai discloses, that is “the acknowledgements from the plurality of target nodes are provided to the switching
10 medium at a fixed time relative to the sending of the multicast information (col. 6, lines 51-54 whereby expecting the acknowledgements in a given amount of time is having them provided at a fixed time relative to sending).” It would have been obvious to one with ordinary skill in the art at the time of invention to include the fixed time interval with the networked system of claim 12 for the purpose of giving a finite time period for the
15 nodes to respond. The motivation being that resources will not be wasted on waiting for an acknowledgement that is never coming.

Regarding claim 19, Kristol, Crocker, and Bartfai disclose the networked system of claim 18. However, Kristol and Crocker lack what Bartfai further discloses, that is “the
20 combined acknowledgement is provided to the source node at a fixed time relative to the sending of the multicast information (col. 6, lines 51-54 whereby expecting the acknowledgements in a given amount of time is having them provided at a fixed time

Art Unit: 2661

relative to sending; where it is noted that concept of a timed interval for acknowledgements is well known in the art and Bartfai is describing generally a timed interval situation for nodes in a system)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the timed interval with the system of claim 18 for the same reasons and motivation as in claim 18.

Regarding claim 20, Kristol discloses " a networked system comprising:
a sending node (col. 9, line 36 where S is the source or sending node);

a plurality of receiving nodes coupled to...receive multicast information sent from the sending node during a multicast operation and coupled to provide acknowledgements indicating whether the multicast information was successfully received (col. 9, lines 36-42 where all E's are the receiving nodes and their status messages are the acknowledgment messages);

a...medium coupled to supply the multicast information to the respective receiving nodes...and to receive and combine the respective acknowledgements into a combined acknowledgement that indicates which of the plurality of receiving nodes acknowledged receipt of the multicast information, wherein the merged acknowledgement is supplied to the sending node (col. 9, lines 39-53 and col. 10, lines 21-24 where L is the coupled medium and where as in step 710 the E_{ij} 's indicate a plurality of targets and as read in col. 10, line 42 the status message is an acknowledgement message sent to the source (sending) node)."

However, Kristol et al. lack "a switching medium coupled to supply the multicast information..." Crocker et al. however, disclose "a switching medium coupled to supply the multicast information...(figure 1, element 20 where the local exchange switch of Crocker is used as the Local Exchange of Kristol)." It would have been obvious to one
5 with ordinary skill in the art at the time of invention to include the local exchange switch with the multicast network for the purpose of routing the information to the correct destination. The motivation for this being efficient data transmission.

Kristol and Crocker however, further lack what Bartfai discloses, that is "the networked system is pipelined (figure 2, where each node level represents a different
10 stage of the pipeline, i.e. primary node is at the first stage, the distribution nodes are at the second stage, etc.)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the pipelined network with the rest of the system for the purpose of allowing the intermediate stages (nodes) to share in the work of the primary node. The motivation being that this allows resources to be freed up at the
15 primary node and increases efficiency (Bartfai, col. 2, lines 60-64).

Allowable Subject Matter

Claims 14-17, 24, 32, and 33 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the
20 limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed 27 July 2004 have been fully considered but they are not persuasive.

Regarding claims 1, 12, 26, and 27, applicant argues that Kristol "does not indicate which destination nodes have received multicast information." Applicant further
5 asserts that Kristol only "indicates the node sending the consolidated status packet," which is not the same as indicating which nodes have received the multicast information. The examiner respectfully disagrees.

Although applicant is correct in stating that Kristol indicates the node sending the consolidated status packet, applicant is incorrect in asserting that Kristol does not
10 indicate which nodes have received the multicast information. Specifically, Kristol discloses that information in the consolidated packet indicates that "all the destinations in its jurisdiction have received all the blocks up to" a given number (col. 9, lines 58-62). That is to say, there is information in the consolidated packet that indicates which of a plurality of targets have received the multicast information. In the case of Kristol, it is all
15 of the targets.

Regarding claim 11, applicant argues that Kristol in view of Bartfai is improper because neither Kristol nor Bartfai disclose, "the merged acknowledgement includes a single bit indicating whether all of the targets successfully received the multicast information." Further, applicant argues that since the combination of Kristol in view of
20 Bartfai fail to read on claim 11, "the Office Action improperly relies on Applicant's own specification as evidence..." and "[l]ooking to Applicant's own disclosure is impermissible hindsight." The examiner respectfully disagrees.

As noted in the rejection of claim 11, although Bartfai is disclosing an acknowledgement packet and not a single acknowledgement bit, one of ordinary skill in the art would recognize that the two are functional equivalents. That is, the acknowledgement bit is only one bit and the packet is several bits, both however, convey the same information, therefore, they are functional equivalents. Further, the Office Action was not citing applicant's specification as evidence to reject the claim (that was done with the combination of Kristol in view of Bartfai), the Office Action cited applicant's specification to show that even the applicant admits the use of a packet instead of a single bit would have been obvious to one of ordinary skill in the art (specification, page 7, lines 31-page 8, lines 1-5). Therefore, applicant is admitting that the use of a single bit instead of a packet would have been obvious as a functional equivalent. Bartfai merely substantiates the use of the single acknowledgement packet.

Regarding claim 23, applicant argues that Kristol in view of Crocker is improper because Kristol does not disclose or suggest, "the switching medium combines the acknowledgements in response to having scheduled a multicast data transfer." Further, applicant argues that the motivation of claim 23 is impermissible hindsight because it relies on claim 12 and therefore, is relying on applicant's own disclosure. The examiner respectfully disagrees.

First, as stated in the rejection for claim 23, Kristol fully reads on applicant's claimed invention as seen in figure 7 of Kristol. As read in col. 9, lines 27-65 the switching medium will receive and combine all the status messages from all the nodes. These status messages are the responses to the scheduled multicast data transfer that

has already happened. Therefore, Kristol fully reads on claim 23. Lastly, it is believed the applicant is misunderstanding the motivation of claim 23. The motivation of claim 23 (as stated) is meant to be the same motivation as that of claim 12. The motivation is not coming from the claim language of claim 12. Since applicant did not argue the

5 motivation for claim 12 as impermissible hindsight, there is no improper hindsight with regard to the motivation of claim 23 because they are the same motivation.

Lastly, with regard to claims 29 and 30, applicant argues that Kristol does not disclose that the status message indicates ports of acknowledging target nodes. The examiner respectfully disagrees.

10 Although Kristol does not explicitly disclose the status messages identify ports associated with the target nodes, Kristol does disclose that each target node is identified by a status message and since a port is nothing more than the physical input/output connection connecting two nodes, the port is automatically identified by way of the target node identification because each node has only one input/output to the
15 switching module. This can be seen in figure 3 through the lines from elements 306 to element 304. Further, U.S. Patent 5,444,705, Olnowich et al. further supports the assertion that a port is nothing more than the physical input/output from one node to another (figure 1 where nodes 1-4 each enter the switching module 10 through there each unique port). Therefore, Kristol fully reads on claims 29 and 30.

20

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

5 A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any
10 extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the
15 examiner should be directed to Joshua Kading whose telephone number is (571) 272-3070. The examiner can normally be reached on M-F: 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (571) 272-3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

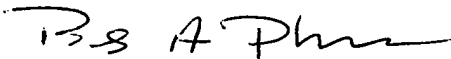
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

- 5 For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Joshua Kading
Examiner
Art Unit 2661

- 10 March 7, 2005



BOB PHUNKULH
PRIMARY EXAMINER